2 REQUIREMENTS AND RESPONSIBILITIES

The acquisition management system utilizes a cascaded set of requirements, direction, guidance, and practices which minimizes mandatory requirements and provides balance and effectiveness while protecting the public trust.

All requirements and responsibilities (as denoted by use of the words "shall" or "must") are detailed in this Chapter. These requirements are mandatory—providing the framework for the entire system—and may only be deviated from with SAE approval. A lower level of direction (described as "should") can be found throughout the Manual and is expected to be followed. Deviation from recommended direction is to be documented and approved as part of the AS or PEP. Additionally, the PM and the IPT have full authority to exercise discretion in implementing "may" or "can" statements found throughout the guidance and practices. These discretionary statements are recommended to improve overall project management, and may be tailored to the specific project. Figure 2-1 is a graphic representation of the Requirements cascade.

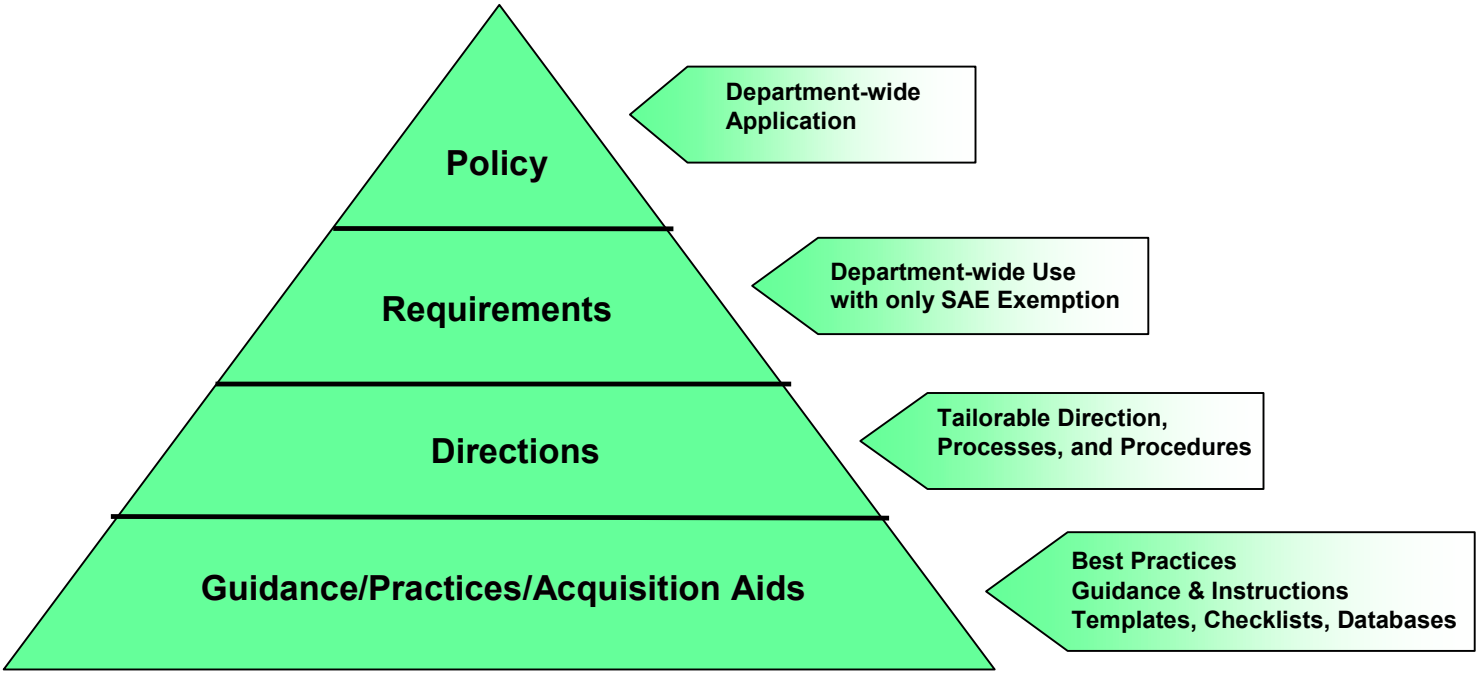

Figure 2-1. Acquisition Management System Requirements

2.1 Requirements and Process Flow

The requirements described in Table 2-1 are mandatory. They are listed consistent with the expected chronological flow of a project and its associated critical decisions. These core requirements are intended to be lean, yet comprehensive so that the Department can efficiently monitor and focus on the products and services that meet the unique needs of

its numerous programs, customers, and users. The process flow and critical decisions do not necessarily indicate a particular time duration between decisions, but indicate the required flow. For example, some projects may need or desire that two critical decisions occur at approximately the same time. This is acceptable as long as the deliverables and maturity of the deliverables meet the requirements of both decisions and the required timing is documented and approved in the project planning. Figure 2-2 is a high-level process diagram reflecting the overall system and highlights most of the requirements.

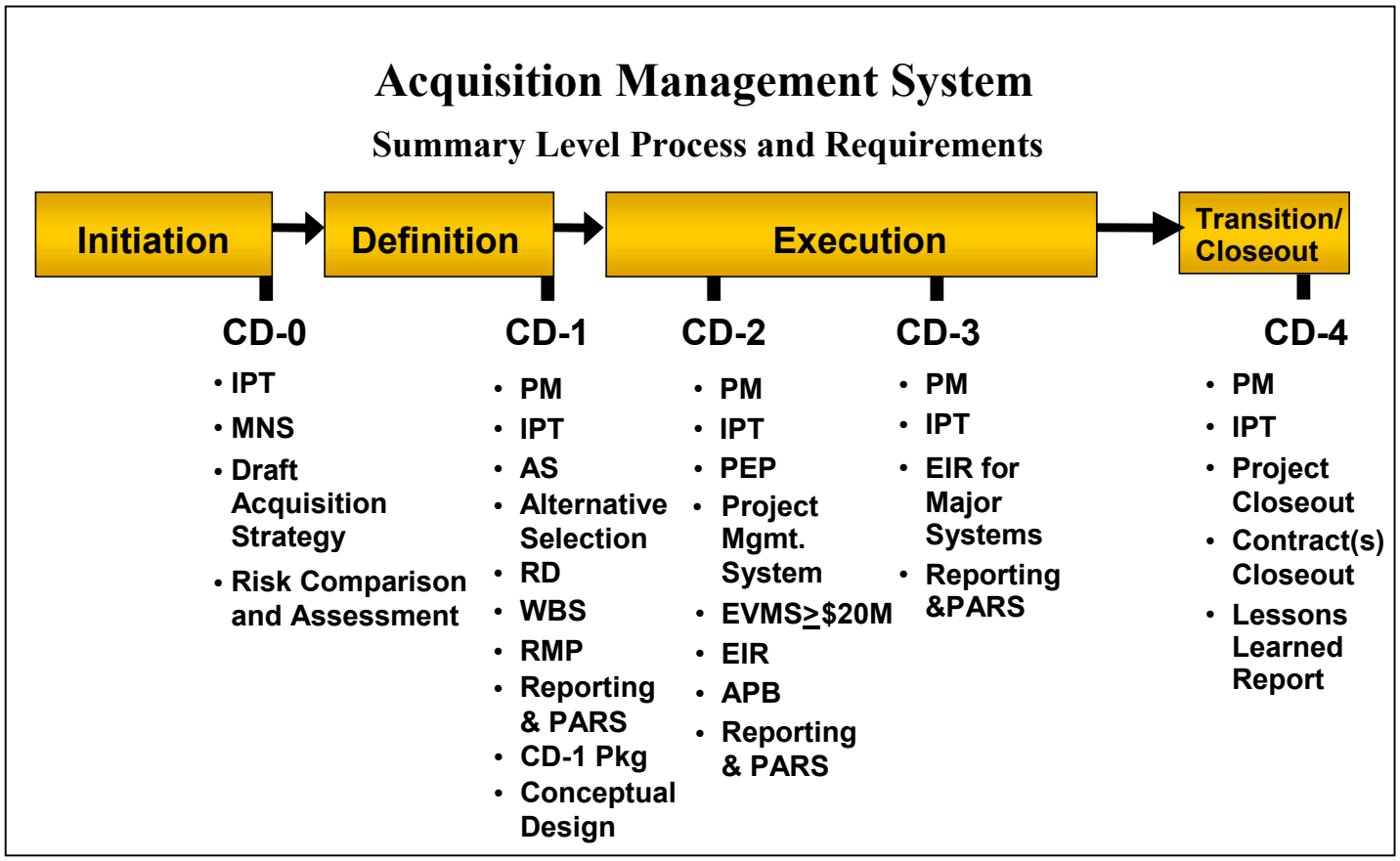

Figure 2-2. Acquisition Management System

Table 2-1. Requirements

Section	Page	Requirements	Responsible Org and/or Individual	Approving Official
1.0	1-2	The requirements identified in this Manual shall be implemented by all projects having an expected Total Project Cost (TPC) greater than $5M.	Under Sec., NNSA Admin and/or Functional leads	Deputy Secretary
1.0	1-2	The Government shall insert a clause(s) into prime contracts requiring compliance with this Manual, when those contracts are involved in the delivery of projects having an expected TPC greater than $5M.	Program or Site Manager	Contracting Officer
2.2	2-5	Direction (should statements) when deviated from or eliminated shall have a rational and clear bases documented in the official project files, and approved as part of either the AS or PEP.	Program Manager and/or PM	AE
2.3.1	2-6	Materiel acquisitions (projects) shall identify, schedule, and utilize the five Critical Decision points (CD-0, -1, -2, -3, -4).	Project Manager	AE
2.4	2-9	Roles, responsibilities, and authorities and approval thresholds in this manual shall be complied with and only delegated as identified.	AE	Deputy Secretary
2.8.1	2-18	A suitably experienced and qualified PM must be assigned and be delegated in writing the necessary authority as early as practicable, and not later than commencement of conceptual design.	Program Manager	AE
2.8.2	2-18	An IPT shall be chartered, staffed during all project phases starting with the developing of the MNS.	Program or PM (if identified)	Program Manager

Section	Page	Requirements	Responsible Org and/or Individual	Approving Official
4.6	4-10	Materiel acquisitions (projects), through various plans and documents, shall define organizational roles and responsibilities; utilize risk management, performance measurement, controls, and reviews throughout all phases.	PM	AE
4.7.1	4-11	MNS shall be concise, follow the format in Section 4.7.1, be risk-assessed, and evaluated by the IPT and reviewed by OMBE, including the draft AS prior to approval by the AE.	Program Manager and IPT	AE
4.9.1	4-16	A draft Acquisition Strategy shall be developed and submitted at CD-0 as part of the CD-0 package for approval.	Program Manager and IPT	AE
5.2	5-1	A comprehensive AS shall be developed for each project in accordance with this Manual, and be integrated with the risk analyses and submitted for review by OMBE prior to approval.	Project Manager and IPT	SAE/Under Sec./ PAS, as approp
5.3.1	5-6	Each project shall document the requirements that form the basis for the design and/or engineering phase of the project and be delivered and approved at CD-1	IPT	PM
5.3.2	5-9	CDR shall clearly and concisely describe the alternative selected (scope, system/plant or facilities), how it meets the MNS, the functions/ requirements that define it, and demonstrate the capability for success.	PM and IPT	AE
5.3.3	5-10	A comprehensive RMP including the risk analyses, shall be developed and submitted for approval as part of the CD-1 decision point.	PM and IPT	AE
5.3.4	5-11	All projects with a TPC expected to be greater than $5M shall perform formal System Engineering and Value Management activities. At a minimum planning shall be accomplished prior to completing the conceptual design activity and initial VM/VE reviews performed as part of completing the CDR and CD-2 deliverables.	Project Manager	AE

Section	Page	Requirements	Responsible Org and/or Individual	Approving Official
5.3.4.1	5-11	A WBS shall be developed as part of system requirements and alternative selection, be project scope driven and utilized as the common framework.	IPT	PM
5.4	5-13	The WBS shall be used to generate an order of range cost and schedule estimate and included in the CD-1 package.	IPT	PM
5.5	5-14	A PEP shall exist for each project; be an accurate reflection of how and by whom the project is to be accomplished; and prepared, submitted, and approved, by CD-2.	PM and IPT	AE
5.7	5-18	Quarterly project progress reviews and reporting (monthly) shall be organized and implemented not later than CD-1 utilizing the DOE Project Assessment and Reporting System (PARS)	PM	PM's Immediate Manager
6.2.1	6-2	All projects shall establish at CD-2 an APB including key performance, schedule, and cost parameters to clearly establish the capabilities being acquired; and the schedule and total cost to acquire the capability.	PM and IPT	AE
6.2.1	6-2	An External Independent Review (EIR) shall be performed prior to APB approval at CD-2.	PM	OMBE
6.3.1	6-4	All projects shall identify a point of full execution and/or implementation (CD-3), schedule an EIR for Major Systems (MS) and an IPR for a Non-MS.	PM	AE
7.0	7-1	All projects shall plan and issue a project Transition/Closeout document (normally started in the Definition phase and issued in the PEP) which provides the bases for attaining IOC and obtaining CD-4 approval.	PM and IPT	AE
8.0	8-2	Key Performance Parameters (KPP) shall be identified which reflect the minimum and/or maximum acceptable performance for the acquired capability at completion.	PM and IPT	AE
8.1.3	8-4	At a minimum KPPs shall be established for TPC and TEC. The TPC is a maximum parameter that cannot be exceeded without being classified as a breach and presented to the SAE for a Decision.	PM	AE

Section	Page	Requirements	Responsible Org and/or Individual	Approving Official
8.2	8-5	The APB shall be risk assessed and adjusted for both durations and costs providing a realistic, achievable APB commitment.	PM and IPT	AE
10.1	10-1	No later than final APB approval, every project shall have a functioning Performance Management System (PMS).	PM	OMBE
10.1	10-2	For projects having a TPC greater than $20M, the PMS shall be an EVMS system that fully complies with ANSI/EIA-748.		
10.2.2.1	10-5	All newly established and selected existing EVMSs shall be certified by OMBE. Existing systems shall, if not already done provide OMBE documentation demonstrating current compliance with the Standard.	PM	OMBE
10.2.2.1	10-6	Once an EVMS system has been approved, all significant proposed changes must obtain Government concurrence prior to implementation.	PM	OMBE
11.2	11-4	Project changes must be identified, controlled, and managed through a traceable, documented, and dedicated change-control process that is defined in the PEP and consistent with Table 2-3.	PM	AE
11.3.2	11-9	All necessary interfaces must be documented using appropriate interface documents.	IPT	PM

2.2 Directions

Supplementing the requirements are a standard set of processes, activities, and associated decisions that are designed to assist the PM and IPT in planning and managing materiel acquisition efforts. The use of "should" has been carefully chosen and used sparingly to identify these directions. These processes and activities give the acquisition management system its comprehensiveness and direct access into best processes/practices while providing the project and its responsible management the flexibility to tailor directions as part of project planning. Rigid, unthinking adherence to a long list of requirements is not desired. Rather, projects are expected to fit the approach within their particular circumstances while still utilizing lessons learned that are represented by the "should" statements. This assures balance by having a healthy tension between the pull of directions and the push of innovation and flexibility. PMs and IPTs are expected to use reasoned, rational judgements in selecting a different approach than that provided by the directions. **Direction (should statements) when deviated from or eliminated shall have a rational and clear bases documented in the official project files, and approved as part of either the AS or PEP.** Examples of rational basis include factual statements showing that:

- A deviation from the directions will clearly enhance one or more factors of cost, schedule, requirements, or benefits.
- Congressional direction requires adoption of a different approach.
- Program/project circumstances clearly show deviations are required.

2.3 Critical Decisions, Authorization, and Responsibilities

Critical Decisions are anchor points for key decisions in the life cycle of a project. CDs provide DOE management and contractors an opportunity to examine the work, particularly in terms of continuing need, and determine if previously validated technical concepts and attendant cost and schedule parameters remain appropriate. Thus, CDs ensure that a project is still valid in light of changing missions, technologies, and other influences such as negotiated agreements. Too often, DOE projects have continued to be developed and pursued based on momentum rather than informed decisions.

At each CD, a review or analysis of a project is conducted and a decision made to either continue to expend resources to move the project forward, or to discontinue the project. An independent review or baseline validation of the project may be conducted prior to a CD request. Reviews will vary in scope dependent on the phase of the project, current conditions, and cost/complexity. Table 2-2 reflects the overall decision authority thresholds. However, some decisions have been set lower and are specifically identified at the appropriate point. These exceptions are repeated in this chapter.

Table 2-2. Decision Authority Thresholds

Project Type	Critical Decision Authority	Decision Thresholds	Acquisition Executive Delegation Allowed
Major System Projects	**Secretarial Acquisition Executive**	↑ **$750M** - Quarterly reviews - MNS - APB EIR - Executability Review (IPR) - ESAAB - EVMS Reporting Required	
Non-Major Systems	**Under Secretaries/ NNSA Administrator (Acquisition Executive)**	↑ **$400M** - Quarterly review - MNS - APB EIR - Executability Review (IPR) - Equivalent ESAAB - EVMS Reporting Required	
	Program Assistant Secretaries or Deputy Administrators for NNSA	↑ **$100M** - Quarterly reviews - MNS - APB EIR - Executability Review (IPR) - Equivalent ESAAB - EVMS Reporting Required	**Acquisition Executive Delegation Allowed**
		↑ **$20M** - Quarterly reviews - APB EIR - Executability Review (IPR) - Equivalent ESAAB - EVMS reporting required	To a Senior Executive Service Program Manager or Operations/Field Office Manager
		↑ **$5M**	

		- Quarterly reviews - APB EIR - Executability Review (IPR) - Equivalent ESAAB - EVMS reporting NOT required	To a Senior Executive Service direct reporting subordinate of the Operations/ Field Office Manager

Responsibility for review and approval of projects having TPCs greater than $750M rests with the Secretarial Acquisition Executive (SAE). CD responsibility is assigned to the next lower management tier consistent with the project's estimated value and delegations. A specific lower threshold requirement is the review and approval of the MNS (CD-0) and its deliverables, which are not delegable, resides with:

- The Deputy Secretary of Energy for projects having an expected TPC of $750M or greater
- The Under Secretaries and Administrator for NNSA for projects having an expected TPC from $400M to $750M
- Program Assistant Secretaries (PAS)/Deputy Administrators for NNSA for projects having an expected TPC between $5M and $400M.

2.3.1 Critical Decisions for Projects

All projects have CDs during their lifecycle. These decisions generally serve as exit points from one phase and as the entrance to the succeeding phase. More importantly, the decisions when made by senior managers provide Departmental commitment to a course of action and approval of the previous phases. **Materiel acquisitions (projects) shall identify, schedule, and utilize the five Critical Decision points (CD-0, -1, -2, -3, -4).** Detailed instructions for preparing CD-supporting documentation are provided in the Practice on Critical Decision Packages. The relationship of CDs to the project life cycle is shown in Figures 2-2 and 4-1.

- CD-0, Approve Mission Need

  Approval of the mission need "formalizes" a project, and permits work to begin on pre-project planning activities that will identify the products to be provided and the requirements to be met for the project's strategic goals and objectives. When possible, the PM is assigned and the IPT organized. PED funds are requested, and a draft acquisition strategy is developed. Project risks are identified and evaluated. Project interfaces are identified, described, and assigned. Minimal technical and functional requirements are identified. A preliminary environmental strategy is defined. Completion of these efforts is the basis for completing CD-0.

  For Environmental Remediation (ER) projects, approval of the mission need enables the work to proceed into the Statement of Basis Pre-ROD Plan process. A Remedial Investigation/Feasibility Study (RI/FS) has been developed and analytical sampling, geophysical investigations, modeling, and proof-of-principle testing are complete. The Corrective Measures Study/Feasibility Study (CMS/FS) has resulted in a proposed

remedy that will likely constitute a project governed by DOE P 413.1 and this Manual. Issuance of a CMS/FS or equivalent documentation will be the basis for initiating the CD-0 process.

- CD-1, Approve System Requirements and Alternatives

  Approve System Requirements and Alternatives reaffirms the mission need for a proposed project and forms the basis for proceeding with preliminary design. Approval of the alternatives and range estimate includes identification of alternatives, trade studies, development efforts, and testing requirements. The PM should be assigned and the IPT organized and functioning. The RMP and AS are finalized, and the AS is finalized and approved. Preliminary baseline ranges for technical scope, schedule, and cost are established. Project risks are defined, evaluated, and managed. Preliminary safety and hazard studies, analyses and documents are prepared. Project interfaces are defined and responsibilities assigned. A PEP is drafted. External reviews are performed. Completion of these efforts is the basis for completing CD-1.

  For ER projects, approval of CD-1 includes activities essentially equivalent to the CDR, such as the completion of the proposed plan, Statement of Basis, or equivalent (e.g., Resource Conservation and Recovery Act (RCRA) permit modification). In addition to a DOE review, the Environmental Protection Agency (EPA), state, stakeholders, and Tribal Nations (as appropriate) review the Remedial Action Implementation Plan or Statement of Basis. Approval of CD-1 allows the commencement of final design activities including studies, specification/drawing preparation, other regulatory permits, etc. Long-lead procurement actions may also be initiated at this time.

- CD-2, Approve APB

  APB approval reaffirms the mission need and sets the project's performance baselines. CD-2 also authorizes the final design to proceed, provided funds are available. Project performance reporting begins at this time as well as implementing a trending program. Needed permits are finalized and safety documents are approved. The PEP is finalized and used for all future project management activities. Project drawings, specifications, procurement packages, and construction packages are prepared. Long-lead procurements may also be identified and needed procurement funds requested. Project performance metrics are established. Studies, development and testing efforts are completed. Completion of these efforts is the basis for completing CD-2.

- CD-3, Authorization to Complete Implementation

  Authorization to Complete Implementation is approval for the project to complete all procurement and construction activities, and the planning, implementing, and completion of all acceptance and turnover activities. Completion of these activities leads to the approval of CD-4 and acceptance of project deliverables/products by the user. Specific activities include: component, system and facility testing and acceptance;

operations and maintenance training and certification; completion of as-built drawings and specifications; completion of operating and maintenance manuals and procedures; and, demobilization of the project.

- CD-4, Approve Project Transition Complete

  Approve Project Transition Complete indicates all project deliverables/products are completed, tested, and IOC-demonstrated. Project closeout documents are prepared and issued, and project personnel are reassigned.

  Upon approval of CD-4, operations and/or maintenance begins (if included in the project scope), or the project is closed. For Environmental Management (EM) projects, completion or closeout of a project consists of completion of all post-construction documentation required for the restoration/disposition activity and transfer of the site for alternative use or long-term stewardship as prescribed by the Record of Decision (ROD), permit, or Post-Closeout Plan.

2.4 Organizational Roles and Responsibilities

Following are brief descriptions of the roles and responsibilities for line management at the various management levels within the DOE, from the Deputy Secretary through the PAS/NNSA Deputy Administrator to the Field Office, and from the PM to the contractor project manager. The most successful method (and the recommended approach) for managing a project is a teaming arrangement between the entities and the contractor. Teaming develops a shared concern for the work to be performed and is more conducive to problem identification and resolution. However, a key activity to help assure a successful team is a clear understanding of roles, responsibilities, authorities, and accountabilities. Authority for projects within the DOE begins with the Deputy Secretary of Energy, as the SAE, who as the senior manager is responsible and accountable for all project acquisitions. The Deputy Secretary may delegate AE authority for non-Major System (MS) projects to an Under Secretary (e.g., for Energy, Science and Environment) or to the NNSA Administrator, both of whom may re-delegate AE authority, as appropriate. Previously, in Section 2.3 and in Table 2-2 overall authority levels were set. Authorizations that differ from Table 2-2 are repeated here. Table 2-3 presents authorization levels for breach changes. Additionally, change control authorizations and thresholds are described in Table 2-4**. Roles, responsibilities, and authorities and approval thresholds in this manual shall be complied with and only delegated as identified.** The organizational and functional relationships between the various offices are described as follows.

2.4.1 Deputy Secretary

The SAE reports, as Deputy Secretary, directly to the Secretary and has line accountability for all Program/project execution. Additionally, the SAE serves as the Chief Operating Officer (COO) for DOE. The SAE also:

- Approves, for non-MS projects, all MNSs (CD-0s) for projects expected to have a TPC greater than $400M and/or those that are separately identified by the SAE.
- Approves MNS (CD-0) for all MS projects. MS projects or those expected to have a TPC greater than $750M or are separately identified by the SAE.
- Approves all ASs (Section 4.2) for projects having a TPC greater than $400M.
- Conducts quarterly reviews of the Department's largest projects as identified.
- Approves all proposed changes that breach an approved APB on projects having a TPC greater than $5M.
- Serves as the senior manager responsible and accountable for all project acquisitions.
- Exercises decision-making authority, including Critical Decisions on MS projects.
- Serves as the Chair for the Energy Systems Acquisition Advisory Board (ESAAB), directs external independent reviews.
- Approves site selection for facilities for new sites.

2.4.2 Under Secretary for Energy, Science and Environment and the Administrator for NNSA shall:

- Receive AE authority from the SAE (the Under Secretary for Energy, Science and Environment) for projects having a TPC less than $750M, consult with the SAE and may delegate AE authority for projects expected to have a TPC less than $400M.
- Receive AE authority from the SAE (the Administrator for NNSA) for projects having a TPC less than $750M, and may delegate AE authority under their cognizance.
- Approve MNS (CD-0) for all projects having a TPC between $20M and $400M (Section 4.7). This authority cannot be further delegated.
- Approve ASs for projects having a TPC between $20M and $400M (Section 5.2). This authority cannot be further delegated.
- Approve all changes and deviations that exceed Level-0 thresholds, but are not breaches on projects having a TPC greater than $5M.
- Serve as the Chair and appoint members of an equivalently constituted ESAAB, and direct internal independent reviews.

2.4.3 Program Assistant Secretaries, including the Deputy Administrators for NNSA, Program Directors, and Others that Report at this Level shall:

- Have line accountability (PASs) for applicable Program/project execution and implementation of policy promulgated by Headquarters staff and support functions.
- Establish direct-report project management support offices, if PASs have project delivery responsibility, in conjunction with the Under Secretary or NNSA Administrator.
- Handle overall line accountability for site-wide environment, safety and health, and safeguards and security.

- Be responsible and accountable for chartering IPTs, identify Program Managers, and ensure the success of all projects within their programmatic area of control.
- Develop the request for PED funding, authorize use of PED funds, and notify Congress before initiating a preliminary design for a new project.
- Approve ASs for projects having a TPC between $5M and $20M. This authority cannot be further delegated.
- Serve as the AE, if delegated for non-MS projects having a TPC below $400M. Approve the CDs (for CD-0 see below) and Level-1 baseline changes for those projects.
- Approve MNSs (CD-0) for projects having a TPC between $5M and $20M. This authority cannot be further delegated.
- Approve all changes and deviations that exceed Level-1 thresholds on projects having a TPC greater than $5M.
- Approve selection of the PM for projects where the equivalent AE functions have not been further delegated.
- Define the roles and responsibilities of the Project Management Support Office.
- Delegate, if desired, equivalent AE functions to a Senior Executive Service (SES) Program Manager or Operations/Field Office Manager for projects having a TPC less than $100M.
- Serve as the Chair and appoint members for an equivalently constituted ESAAB and direct external independent reviews.

2.4.4 Program Manager shall:

- Direct initial project planning and execution roles for projects assigned by the AE.
- Initiate definition of mission need based on input from sites, laboratories, and Program Offices.
- Establish the IPT, if the PM has not yet been identified, and include a Contracting Officer (CO) as a member of the team.
- Oversee development of project definition, technical scope, and budget to support mission need.
- Initiate development of the draft acquisition strategy and completion of the Acquisition Strategy. (during the period of time preceding designation of the project manager).
- Recommend a project manager for those projects for which the PAS retains AE responsibility, and approve the PM when the Program Manager has been delegated AE authority.

- Develop project performance measures, and monitor and evaluate project performance throughout the project's life cycle.
- Allocate resources throughout the Program.
- Oversee and manage the project line management organization.
- Perform functions as AE when so delegated by the PAS and/or the Deputy Secretary, Undersecretary, or NNSA Administrator.
- Prepare IPT Charter.

2.4.5 Project Management Support Office shall:

- Provide independent oversight and reports directly to the Under Secretary, NNSA Administrator, or PAS, as appropriate.
- Serve as the Secretariat for the PAS ESAAB-equivalent functions.
- Coordinate quarterly performance reports for the PAS.
- Coordinate with the Office of Engineering and Construction Management (OECM) to ensure effective and consistent implementation of this Order.
- Provide assistance and oversight to line project management organizations.
- Analyze the full range of project management and project delivery issues for the PAS.

2.4.6 Operations/Field Office Manager/Field Managers for NNSA Operations shall:

- Report directly to the PAS or Deputy Administrators and have line accountability for contract management of all site program/project execution.
- Recommend a project manager for those projects for which the PAS retains AE responsibility. Approve the PM where the Operations/Field Office Manager has been delegated AE authority.
- For projects having a TPC less than $20M, may delegate project planning and execution roles, including performance reviews, to a direct reporting subordinate manager (or SES subordinate manager for AE delegation).
- Perform functions as AE when so delegated by the PAS.

2.4.7 Project Manager shall:

- Be responsible and accountable for project management activities of one or more discrete projects under their cognizance.
- Be responsible and accountable for planning, implementing, and completing a project using a systems engineeering approach.
- Develop and implement the AS and PEP.
- Define project objectives, technical, schedule, and cost scopes.
- Allocate project funding and authorize work activities.

- Direct the design, construction, environmental, safety, health, and quality efforts performed by various contractors, and other functions enumerated in the PEP, in accordance with public law, regulations, and Executive Orders.
- Provide for the timely, reliable, and accurate integration of contractor performance data into the project's scheduling, accounting, and performance measurement systems.
- Evaluate and verify reported progress; make projections of progress and identify trends.
- Serve as the single point of contact between Federal and contractor staff for all matters relating to the project and its performance.
- Serve as the Contracting Officer's Technical Representative (COTR), as appointed.
- Finalize, approve, and issue the IPT charter.
- As delegated by Operations/Field Office Manager or Program Manager, approve all deviations that exceed Level-2/3 thresholds for projects having a TPC greater than $5M.

2.4.8 Integrated Project Team shall:

- Support the PM in performing all their assigned responsibilities.
- Develop and implement an appropriate project contracting strategy.
- Assure all project interfaces are identified, completely described/defined, and managed to completion.
- Identify and define appropriate and adequate project Key Performance Parameters: (KPPs), Key Schedule Parameters (KSPs), and Key Cost Parameters (KCPs).
- Perform monthly review and assessment of project performance and status against established performance parameters, baselines, milestones, and deliverables.
- As necessary, plan and participate in project reviews, audits, and appraisals.
- Review all CD packages for completeness and recommend approval/disapproval.
- Review and comment on project deliverables, e.g., drawings, specifications, procurement, and construction packages.
- Review change requests (as appropriate) and support change control boards (CCBs) as requested.
- Plan and (as appropriate) participate in the project's Operational Readiness Review (ORR).
- Support the preparation, review, and approval of project completion and close-out documentation.

2.4.9 Office of the Chief Information Officer shall:

- Establish and maintain Department-wide guidance for Information Technology (IT) investment management projects, including IT hardware, software and application, and capital assets.

- Design and guide implementation of the corporate-level IT investment management process.
- Provide IT investment management process assistance to Program Office, Field Office, Site, and contractor locations, as requested.
- Regularly collect process performance measurement information, and prepare a summary report on the status and performance of IT investment management processes.

2.4.10 Office of Management, Budget and Evaluation shall:

- Serve as DOE's principal point of contact relating to project management.
- Develop policy and assist in the planning, programming, budgeting, and execution process for the acquisition of materiel assets in coordination with PASs and project management support offices.
- Support the Office of the Secretary, the Chief Operating Officer, the Administrator of NNSA, and the Program Assistant Secretarial Office in the CD process for MS projects and oversight of the DOE's project management process.
- Serve as Secretariat for the ESAAB functions.
- Establish and oversee the PM career/professional development programs.
- Review and certify EVMSs and approve significant changes to them.
- Provide an independent assessment of proposed APB rebaselining that would entail a breach of commitments to Congress for projects having a TPC greater than $5M.
- Provide MNS Program Analysis and Evaluation (PA&E) and AS (OECM) reviews for all projects over $5M.
- Develop and provide oversight for the Deputy Secretary with a CD-0 review and approval process.

2.5 Energy Systems Acquisition Advisory Board

The Energy Systems Acquisition Advisory Board (ESAAB) advises the SAE in making MS project Critical Decisions, APB breach-level change decisions, and site selection decisions for facilities for new sites. ESAAB meets once every two months, or at the call of the SAE.

- Membership. ESAAB membership includes the SAE as Chair, the Under Secretary and NNSA Administrator; the DOE, General Counsel; the Director of Office of Management, Budget and Evaluation/Chief Financial Officer (OMBE/CFO); the Director of OECM; the Assistant Secretary for Environment, Safety and Health; the Assistant Secretary for Environmental Management; the Deputy Administrator for Defense Programs; the Director for Office of Science; and the Director of Procurement and Assistance Management. The Deputy Secretary may designate other PASs or functional staff as board members, as needed.

- ESAAB Secretariat. The ESAAB Secretariat resides in OECM and provides administrative and analytical support and recommendations to the ESAAB.

2.5.1 Non-Major System Project ESAABs

The Under Secretary and NNSA Administrator will appoint an ESAAB-equivalent for advising on actions regarding those projects having a TPC between $20M and $750M. The Under Secretary/NNSA Administrator serves as AE for these projects and as chair of the ESAAB-equivalent. The ESAAB-equivalent replicates and conducts the same functions as those performed by the corporate ESAAB. Members may be selected from within the Under Secretary/NNSA Administrator offices or from other Headquarters functions. At least one member is from a different Under Secretarial Office and is designated as the contributing representative. OECM provides a member of each ESAAB-equivalent for projects having a TPC greater than $100M. Each Under Secretary provides the composition of its ESAAB-equivalent to OECM.

2.5.2 Delegated Project ESAABs

Each PAS/Deputy NNSA Administrator may delegate equivalent AE functions, including decision approvals, for projects having a TPC between $5M and $20M to an SES Program Manager or an Operations/Field Office Manager. The Program Manager or Operations/Field Office Manager may further delegate equivalent AE functions to a direct reporting SES subordinate. The PAS and/or designated AE establishes and chairs an ESAAB-equivalent, and notifies OECM of its composition, invites OECM to all board meetings, and provides all agendas and minutes to OECM and the appropriate Project Management Support Office. However, OECM is not a board member.

2.5.3 Delegations

The Under Secretary or Deputy NNSA Administrator may delegate equivalent AE functions, including decision approvals, for projects having a TPC less than $400M to a PAS or Deputy NNSA Administrator. For those delegated non-MS projects having a TPC less than $100M, the PAS or Deputy NNSA Administrator can delegate AE responsibilities to the Operations/Field Office Manager. For projects having a TPC less than $20M, AE responsibilities can be delegated to an SES manager. Table 2-2 provides an overview of the allowable AE delegations. The AE, so designated, establishes and chairs an ESAAB-equivalent.

2.6 APB Breach Authority

All Breach level changes are reserved for the Deputy Secretary. Table 2-3 sets the mandatory change levels and associated thresholds.

Table 2-3. Breach Authority Levels for Change

Breach Approval Authority
Breaches – Secretarial Acquisition Executive
2a. Major System Projects: TPC ≥ $750M

	Breaches
Technical Scope	Changes which exceed the APB KPPs as committed to Congress in the PDS
Schedule	Changes which exceed the APB schedule by more than 6 months
Cost	Change which exceeds the APB TPC as committed to Congress in the PDS

2b. Non-MS Projects: TPC >$5M and <$750M	
	Breaches
Technical Scope	Changes which exceed the APB KPPs as committed to Congress in the PDS
Schedule	Changes which exceed the APB schedule by more than 6 months
Cost	Change which exceeds the APB TPC as committed to Congress in the PDS

2.7 Baseline Change Control Levels

Four control levels govern baseline change control for DOE projects. Agreed upon thresholds limit the control each organizational element has over baseline change approval, and the change control process. The baseline objectives and associated change control thresholds for each project are documented in the PEP, and approved at the CD-2 (APB) decision point, see Chapter 11.

Table 2-4. Authority Levels for Change

Approval Authority				
Level-1 Changes – Under Secretary or NNSA Administrator Level-2 Changes – PAS/Deputy Administrator Level-3 Changes – Project Manager as delegated by the Operations/Field Office Mgr or Program Mgr Level-4 Changes – Contractor				
2a. Major System Projects: TPC ≥ $750M				
	Level-1	**Level-2**	**Level-3**	**Level-4**
Technical Scope	Changes to scope below the APB threshold parameters (KPPs) that do not meet mission need objectives	Changes to scope that may affect operation functions but does not affect mission need	As defined in the PEP	As defined in the PEP
Schedule	6 or more months increase (cumulative) in a project-level schedule milestone date, not exceeding the APB threshold	3 to 6 months increase (cumulative) in a project-level schedule milestone date	As defined in the PEP	As defined in the PEP
Cost	Increase of over $25M and/or Increase in TEC, not exceeding the APB TPC	Increase of over $25M and/or increase in TEC	As defined in the PEP	As defined in the PEP
2b. Non-MS Projects: TPC >$5M and <$750M				
	Level-1	**Level-2**	**Level-3**	**Level-4**
Technical Scope	New scope/ performance not in conformance with current approved PDS	Changes to scope that affect mission need requirements	As defined in the PEP	As defined in the PEP
Schedule	6 or more month increase (cumulative) in a project-level schedule milestone date, not exceeding the APB	3 to 6 or more months increase (cumulative) in a project-level schedule milestone date.	As defined in the PEP	As defined in the PEP
Cost	Increase of over $25M and/or Increase in TEC, not exceeding the APB TPC	Project cost increase of 25% or below $25M, whichever is lower, and as defined in the PEP	As defined in the PEP	As defined in the PEP

2.8 Project Roles

The nature of projects and project processes makes everyone involved a customer and a supplier. Therefore, project personnel need to have a clear understanding of their roles and responsibilities. Projects are often divided into discrete work tasks (subprojects) with a responsible project individual assigned to manage a portion of the total project. Early in the

project life cycle, the PM should prepare a responsibility/authority matrix that identifies a responsible individual for each project work task. The individuals involved should understand and concur with their responsibility, authority, and accountability assignment, and be aware of similar assignments among the project team.

Organizational planning involves identifying, documenting, and assigning project roles, responsibilities, and reporting relationships to individuals or to groups. The individuals and groups may be internal or external to the organization performing the project. The linkage between the organization and the Work Breakdown Structure (WBS) is the Organizational Breakdown Structure (OBS).

2.8.1 Project Manager

A PM is the individual responsible for accomplishing a designated objective within a certain timeframe and cost. The PM is responsible for assuring that project goals and objectives are met, that quality work is completed on time and within budget, and making appropriate management decisions for the project.

A number of different organizations and individuals are orchestrated into a team effort by the PM, to ensure that project goals and objectives are identified and met. The PM is the primary contact for all response actions, and as such coordinates, directs, and reviews the work of all individuals involved. **A suitably experienced and qualified PM must be assigned and be delegated in writing the necessary authority as early as practicable, and not later than commencement of conceptual design.**

2.8.2 Integrated Project Team

The IPT performs as a team and is formally documented as such. The PM is the team leader and is suitably qualified and experienced in project management and, if possible, the particular technology being developed/implemented (see Sections 2.4.8 and 4.8).

An IPT is organized and led by the PM. **An IPT shall be chartered, staffed during all project phases starting with the developing of the MNS.** The IPT includes a number of DOE functional areas, such as budget, financial, legal, safety, and contracting. The IPT has specific responsibilities in the performance of a project and remains organized and functioning throughout the project's life cycle. The earliest responsibility of the IPT is to assist the PM in developing a draft acquisition strategy, and in preparing and issuing the AS. As a project progresses from pre-acquisition to IOC, the members of the IPT may change during the project life cycle to reflect changing project activities. As a result, the IPT could eventually include members from operations, engineering, technology, legal, and others representing key performing and supporting organizations. The IPT includes both DOE and contractor employees.

Selection of the project team is a crucial PM responsibility. Team members need to be suitably trained and qualified. They should be self-starters, able to work with minimal direction, possess excellent communication skills, and able to function as a team member. As the primary contact for project activities, the PM is in the best position to know what strengths the project team needs. Early team organization enhances future success by

establishing group communication and a sense of project ownership. Organization of the team will vary by project and project phase, but generally the members fall within four categories: the core team, the base support team, the decision-makers, and outside agencies. The PM exerts as much control as possible over the composition of the team by determining the expertise needed in the core project team. For example, the expertise required for an ER project team might consist of an environmental assessment, health and safety, biological sampling, water/wastewater sampling, soil sampling, air sampling, engineering (environmental, civil, safety, and mechanical), public affairs/community relations coordination, legal, planning commission (local planning and design), industrial hygiene, construction management with engineering oversight, and various technical experts for review committees.

As a project team begins to function, backup or replacement members are identified and trained, particularly for critical activities. Assuring project continuity is important. Generally, some backup personnel are also members of the project team. The "backup philosophy" applies equally to the PM.

2.8.3 Federal Project Manager

As used in this Manual, the PM always refers to the Federal PM. Other individuals such as the Program Manager and contractor project manager will be specifically identified. The PM has overall authority, responsibility, and accountability for all assigned projects. However, the project management activities identified in this Manual and other documents may be carried out by the contractor project manager(s). Appropriate documentation, which is generally the PEP, reflects any assignments to assure a clear understanding and effective performance. In all cases, it is the PM's responsibility along with the CO to ensure that all actions are consistent with Federal responsibilities and the contractor's contract.

The contractor's project manager may becomes responsible for managing assigned project/subcontract activities and is delegated the necessary authority to accomplish the assigned work. Accountability, however, accompanies delegation of authority. The PM always retains ultimate project responsibility, authority, and accountability—these are not and cannot be totally delegated or abrogated. On the other hand, any responsibility delegated to either the PM or contractor project manager should be inseparably linked with the authority necessary to accomplish the assigned task.

2.9 References, Other Requirements, and Appendices

The PM ensures that the appropriate revisions of applicable requirement documents are identified and approved in the APB. The PM also ensures that they applied throughout the project. Evolution of requirements below the APB is managed through the project's change control system.

The DOE complex routinely deals with activities that are unique. Applicable requirements are published by way of the Directives system in addition to laws, regulations, and site-specific documents. This Manual and the associated Practices provide the framework and

planning process for projects to ensure that the appropriate references and requirements are included. However, it is not an all-inclusive list of appropriate references and requirements. Areas like design and engineering may have a complex set of standards, particularly when the project has nuclear related scope. Some projects and/or sites may still utilize what is known as the "four digit directives," such as the 5400 Series; and the 6400 Series, Construction and Engineering, where the older DOE O 6430, "General Design Criteria" still resides. Coverage and identification of these requirements are the responsibility of the PM and IPT, generally in conjunction with the designer. This Manual's various outputs (i.e. , Systems Engineering, RMP, Value Management Plan (VMP), PEP, etc.) and deliverables (i.e., MNS, AS, RD, and APB) when properly done, and followed, along with the guidance Practices, will provide the bases and substance that the project management process then uses to integrate and deliver the materiel asset within performance, on time, and within cost objectives.

The Glossary and Acronyms (Appendix A) include a comprehensive listing of terms and abbreviations to help assure that all users of the Manual and Practices have a common understanding of terms and their usage.

This Manual contains some specific References throughout. Additionally, a supplementary set of references and suggested reading are presented in Appendix B, "References." Appendix C details the five project types, and includes a comprehensive sample set of typical inputs, activities, and outputs.